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1636

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1600

## RAW SEQUENCE LISTING

DATE: 07/19/2002

PATENT APPLICATION: US/09/780,224B

TIME: 14:49:37

Input Set : A:\208859.ST25.txt

Output Set: N:\CRF3\07192002\I780224B.raw

3 <110> APPLICANT: Roelvink, Petrus W  
4 Kovesdi, Imre  
5 Wickham, Thomas J  
7 <120> TITLE OF INVENTION: ADENOVIRAL CAPSID CONTAINING CHIMERIC PROTEIN IX  
9 <130> FILE REFERENCE: 208859  
11 <140> CURRENT APPLICATION NUMBER: US 09/780,224B  
C--> 12 <141> CURRENT FILING DATE: 2002-07-02  
14 <150> PRIOR APPLICATION NUMBER: US 60/181,163  
15 <151> PRIOR FILING DATE: 2000-02-09  
17 <160> NUMBER OF SEQ ID NOS: 15  
19 <170> SOFTWARE: PatentIn Ver. 3.1  
21 <210> SEQ ID NO: 1  
22 <211> LENGTH: 144  
23 <212> TYPE: PRT  
24 <213> ORGANISM: Adenovirus  
26 <400> SEQUENCE: 1  
27 Met Asn Gly Thr Thr Gln Asn Asn Ala Ala Leu Phe Asp Gly Gly Val  
28 1 5 10 15  
30 Phe Ser Pro Tyr Leu Thr Ser Arg Leu Pro Tyr Trp Ala Gly Val Arg  
31 20 25 30  
33 Gln Asn Val Val Gly Ser Thr Val Asp Gly Arg Pro Val Ala Pro Ala  
34 35 40 45  
36 Asn Ser Ser Thr Leu Thr Tyr Ala Thr Ile Gly Pro Ser Pro Leu Asp  
37 50 55 60  
39 Thr Ala Ala Ala Ala Ala Ser Ala Ala Ala Ser Thr Ala Arg Ser  
40 65 70 75 80  
42 Met Ala Ala Asp Phe Ser Phe Tyr Asn His Leu Ala Ser Asn Ala Val  
43 85 90 95  
45 Thr Arg Thr Ala Val Arg Glu Asp Ile Leu Thr Val Met Leu Ala Lys  
46 100 105 110  
48 Leu Glu Thr Leu Thr Ala Gln Leu Glu Glu Leu Ser Gln Lys Val Glu  
49 115 120 125  
51 Glu Leu Ala Asp Ala Thr Thr His Thr Pro Ala Gln Pro Val Thr Gln  
52 130 135 140  
54 <210> SEQ ID NO: 2  
55 <211> LENGTH: 125  
56 <212> TYPE: PRT  
57 <213> ORGANISM: Adenovirus  
59 <400> SEQUENCE: 2  
60 Met Ala Glu Glu Gly Arg Ile Tyr Val Pro Tyr Val Thr Ala Arg Leu  
61 1 5 10 15  
63 Pro Lys Trp Ser Gly Ser Val Gln Asp Lys Thr Gly Ser Asn Met Leu  
64 20 25 30

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66 Gly Gly Val Val Leu Pro Pro Asn Ser Gln Ala His Arg Thr Glu Thr
67           35                     40                     45
69 Val Gly Thr Glu Ala Thr Arg Asp Asn Leu His Ala Glu Gly Ala Arg
70           50                     55                     60
72 Arg Pro Glu Asp Gln Thr Pro Tyr Met Ile Leu Val Glu Asp Ser Leu
73 65                     70                     75                     80
75 Gly Gly Leu Lys Arg Arg Met Asp Leu Leu Glu Glu Ser Asn Gln Gln
76           85                     90                     95
78 Leu Leu Ala Thr Leu Asn Arg Leu Arg Thr Gly Leu Ala Ala Tyr Val
79           100                    105                    110
81 Gln Ala Asn Leu Val Gly Gly Gln Val Asn Pro Phe Val
82           115                    120                    125
84 <210> SEQ ID NO: 3
85 <211> LENGTH: 125
86 <212> TYPE: PRT
87 <213> ORGANISM: Adenovirus
89 <400> SEQUENCE: 3
90 Met Ala Glu Glu Gly Arg Ile Tyr Val Pro Tyr Val Thr Ala Arg Leu
91 1           5                     10                     15
93 Pro Lys Trp Ser Gly Ser Val Gln Asp Lys Thr Gly Ser Asn Met Leu
94           20                     25                     30
96 Gly Gly Val Val Leu Pro Pro Asn Ser Gln Ala His Arg Thr Glu Thr
97           35                     40                     45
99 Val Gly Thr Glu Ala Thr Arg Asp Asn Leu His Ala Glu Gly Ala Arg
100          50                     55                     60
102 Arg Pro Glu Asp Gln Thr Pro Tyr Met Ile Leu Val Glu Asp Ser Leu
103 65                     70                     75                     80
105 Gly Gly Leu Lys Arg Arg Met Asp Leu Leu Glu Glu Ser Asn Gln Gln
106           85                     90                     95
108 Leu Leu Ala Thr Leu Asn Arg Leu Arg Thr Gly Leu Ala Ala Tyr Val
109           100                    105                    110
111 Gln Ala Asn Leu Val Gly Gly Gln Val Asn Pro Phe Val
112          115                    120                    125
114 <210> SEQ ID NO: 4
115 <211> LENGTH: 140
116 <212> TYPE: PRT
117 <213> ORGANISM: Adenovirus
119 <400> SEQUENCE: 4
120 Met Ser Ala Asn Ser Phe Asp Gly Ser Ile Val Ser Ser Tyr Leu Thr
121 1           5                     10                     15
123 Thr Arg Met Pro Pro Trp Ala Gly Val Arg Gln Asn Val Met Gly Ser
124           20                     25                     30
126 Ser Ile Asp Gly Arg Pro Val Leu Pro Ala Asn Ser Thr Thr Leu Thr
127           35                     40                     45
129 Tyr Glu Thr Val Ser Gly Thr Pro Leu Glu Thr Ala Ala Ser Ala Ala
130          50                     55                     60
132 Ala Ser Ala Ala Ala Ala Thr Ala Arg Gly Ile Val Thr Asp Phe Ala
133 65                     70                     75                     80
135 Phe Leu Ser Pro Leu Ala Ser Ser Ala Ala Ser Arg Ser Ser Ala Arg

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136                      85                      90                      95
138 Asp Asp Lys Leu Thr Ala Leu Leu Ala Gln Leu Asp Ser Leu Thr Arg
139                      100                      105                      110
141 Glu Leu Asn Val Val Ser Gln Gln Leu Leu Asp Leu Arg Gln Gln Val
142                      115                      120                      125
144 Ser Ala Leu Lys Ala Ser Ser Pro Pro Asn Ala Val
145      130                      135                      140
147 <210> SEQ ID NO: 5
148 <211> LENGTH: 140
149 <212> TYPE: PRT
150 <213> ORGANISM: Adenovirus
152 <400> SEQUENCE: 5
153 Met Ser Thr Asn Ser Phe Asp Gly Ser Ile Val Ser Ser Tyr Leu Thr
154   1                      5                      10                      15
156 Thr Arg Met Pro Pro Trp Ala Gly Val Arg Gln Asn Val Met Gly Ser
157                      20                      25                      30
159 Ser Ile Asp Gly Arg Pro Val Leu Pro Ala Asn Ser Thr Thr Leu Thr
160                      35                      40                      45
162 Tyr Glu Thr Val Ser Gly Thr Pro Leu Glu Thr Ala Ala Ser Ala Ala
163      50                      55                      60
165 Ala Ser Ala Ala Ala Ala Thr Ala Arg Gly Ile Val Thr Asp Phe Ala
166   65                      70                      75                      80
168 Phe Leu Ser Pro Leu Ala Ser Ser Ala Ala Ser Arg Ser Ser Ala Arg
169                      85                      90                      95
171 Asp Asp Lys Leu Thr Ala Leu Leu Ala Gln Leu Asp Ser Leu Thr Arg
172                      100                      105                      110
174 Glu Leu Asn Val Val Ser Gln Gln Leu Leu Asp Leu Arg Gln Gln Val
175                      115                      120                      125
177 Ser Ala Leu Lys Ala Ser Ser Pro Pro Asn Ala Val
178      130                      135                      140
180 <210> SEQ ID NO: 6
181 <211> LENGTH: 132
182 <212> TYPE: PRT
183 <213> ORGANISM: Adenovirus
185 <400> SEQUENCE: 6
186 Met Ser Gly Phe Thr Glu Gly Asn Ala Val Ser Phe Glu Gly Gly Val
187   1                      5                      10                      15
189 Phe Ser Pro Tyr Leu Thr Thr Arg Leu Pro Ser Trp Ala Gly Val Arg
190                      20                      25                      30
192 Gln Asn Val Val Gly Ser Asn Val Asp Gly Arg Pro Val Ala Pro Ala
193                      35                      40                      45
195 Asn Ser Thr Thr Leu Thr Tyr Ala Thr Ile Gly Ser Ser Val Asp Thr
196      50                      55                      60
198 Ala Ala Ala Ala Ala Ala Ser Ala Ala Ala Ser Thr Ala Arg Gly Met
199   65                      70                      75                      80
201 Ala Ala Asp Phe Gly Leu Tyr Asn Gln Leu Ala Ala Ser Arg Leu Arg
202                      85                      90                      95
204 Glu Glu Asp Ala Leu Ser Val Val Leu Thr Arg Leu Glu Glu Leu Ser
205                      100                      105                      110

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207 Gln Gln Leu Gln Asp Met Ser Ala Lys Met Ala Leu Leu Asn Pro Pro
208      115      120      125
210 Ala Asn Thr Ser
211      130
213 <210> SEQ ID NO: 7
214 <211> LENGTH: 133
215 <212> TYPE: PRT
216 <213> ORGANISM: Adenovirus
218 <400> SEQUENCE: 7
219 Met Ser Gly Ser Met Glu Gly Asn Ala Val Ser Phe Lys Gly Gly Val
220 1      5      10      15
222 Phe Ser Pro Tyr Leu Thr Thr Arg Leu Pro Ala Trp Ala Gly Val Arg
223      20      25      30
225 Gln Asn Val Met Gly Ser Asn Val Asp Gly Arg Pro Val Ala Pro Ala
226      35      40      45
228 Asn Ser Ala Thr Leu Thr Tyr Ala Thr Val Gly Ser Ser Val Asp Thr
229      50      55      60
231 Ala Ala Ala Ala Ala Ala Ser Ala Ala Ala Ser Thr Ala Arg Gly Met
232 65      70      75      80
234 Ala Ala Asp Phe Gly Leu Tyr Asn Gln Leu Ala Ala Ser Arg Ser Leu
235      85      90      95
237 Arg Glu Glu Asp Ala Leu Ser Val Val Leu Thr Arg Met Glu Glu Leu
238      100      105      110
240 Ser Gln Gln Leu Gln Asp Leu Phe Ala Lys Val Ala Leu Leu Asn Pro
241      115      120      125
243 Pro Ala Asn Ala Ser
244      130
246 <210> SEQ ID NO: 8
247 <211> LENGTH: 130
248 <212> TYPE: PRT
249 <213> ORGANISM: Adenovirus
251 <220> FEATURE:
252 <221> NAME/KEY: misc_feature
253 <222> LOCATION: (2)..(5)
254 <223> OTHER INFORMATION: "Xaa" may be any amino acid
256 <220> FEATURE:
257 <221> NAME/KEY: misc_feature
258 <222> LOCATION: (7)..(7)
259 <223> OTHER INFORMATION: "Xaa" may be any amino acid
261 <220> FEATURE:
262 <221> NAME/KEY: misc_feature
263 <222> LOCATION: (9)..(9)
264 <223> OTHER INFORMATION: "Xaa" may be any amino acid
266 <220> FEATURE:
267 <221> NAME/KEY: misc_feature
268 <222> LOCATION: (11)..(11)
269 <223> OTHER INFORMATION: "Xaa" may be any amino acid
271 <220> FEATURE:
272 <221> NAME/KEY: misc_feature

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## RAW SEQUENCE LISTING

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Input Set : A:\208859.ST25.txt

Output Set: N:\CRF3\07192002\I780224B.raw

273 <222> LOCATION: (21)..(21)  
274 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
276 <220> FEATURE:  
277 <221> NAME/KEY: misc\_feature  
278 <222> LOCATION: (30)..(30)  
279 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
281 <220> FEATURE:  
282 <221> NAME/KEY: misc\_feature  
283 <222> LOCATION: (34)..(34)  
284 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
286 <220> FEATURE:  
287 <221> NAME/KEY: misc\_feature  
288 <222> LOCATION: (45)..(45)  
289 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
291 <220> FEATURE:  
292 <221> NAME/KEY: misc\_feature  
293 <222> LOCATION: (54)..(57)  
294 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
296 <220> FEATURE:  
297 <221> NAME/KEY: misc\_feature  
298 <222> LOCATION: (69)..(69)  
299 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
301 <220> FEATURE:  
302 <221> NAME/KEY: misc\_feature  
303 <222> LOCATION: (74)..(76)  
304 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
306 <220> FEATURE:  
307 <221> NAME/KEY: misc\_feature  
308 <222> LOCATION: (79)..(83)  
309 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
311 <220> FEATURE:  
312 <221> NAME/KEY: misc\_feature  
313 <222> LOCATION: (86)..(86)  
314 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
316 <220> FEATURE:  
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318 <222> LOCATION: (88)..(90)  
319 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
321 <220> FEATURE:  
322 <221> NAME/KEY: misc\_feature  
323 <222> LOCATION: (92)..(95)  
324 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
326 <220> FEATURE:  
327 <221> NAME/KEY: misc\_feature  
328 <222> LOCATION: (98)..(98)  
329 <223> OTHER INFORMATION: "Xaa" may be any amino acid  
331 <220> FEATURE:  
332 <221> NAME/KEY: misc\_feature  
333 <222> LOCATION: (100)..(101)

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/780,224B

DATE: 07/19/2002  
TIME: 14:49:38

Input Set : A:\208859.ST25.txt  
Output Set: N:\CRF3\07192002\I780224B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; Xaa Pos. 3,4,5,7,9,11,21,30,34,45,54,55,56,57,69,74,75,76,79,80,81

Seq#:8; Xaa Pos. 82,83,86,88,89,90,92,93,94,95,98,100,101,105,107,108,110

Seq#:8; Xaa Pos. 111,112,114,115,116,119,120,122,123,124,125,127,129

## VERIFICATION SUMMARY

DATE: 07/19/2002

PATENT APPLICATION: US/09/780,224B

TIME: 14:49:38

Input Set : A:\208859.ST25.txt

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16  
L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:32  
L:386 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:48  
L:389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:64  
L:392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:80  
L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:96  
L:398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:112  
L:401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:128